Montana Clinical Communication & Surveillance Report

MONTANA
CARDIOVASCULAR HEALTH AND DIABETES PROGRAMS

Montana Department of Public Health and Human Services
Chronic Disease Prevention and Health Promotion Program
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EVALUATION AND TREATMENT OF OBESITY AND OVERWEIGHT IN MONTANA YOUTH

WHAT'S INSIDE

BACKGROUND

This is the first in a series of surveillance reports with findings from a survey of Montana clinicians about attitudes and practices regarding obesity and overweight in adults and children. This report focuses on obesity and overweight in children and adolescents. In recent years, national studies have shown alarming increases in childhood obesity.[1] Childhood obesity involves a complicated interplay of genetic, familial, and environmental factors which are still being studied. Clinical approaches to the prevention and treatment of overweight children vary according to the age of the child.[2] Only recently have experts agreed, using Body Mass Index (BMI) as an index of overweight in children. Despite the lack of clinical trials to validate effective treatments for childhood obesity, the problem cannot be ignored. Not only do obese children and adolescents carry an increased burden of cardio-metabolic risk factors into young adulthood, but children themselves are experiencing significant morbidity from obesity. "Adult" diabetes (i.e. Type 2 Diabetes) is now occurring in youth.[3] A national study of hospital discharges for

children found that costs and hospitalizations for obesity-related problems in youth are increasing.[4]

Data from the Youth Risk Behavior Survey indicate that the prevalence of overweight in high school students in Montana and in the United States is increasing (Figure 1). This report presents the findings from a recent survey of Montana clinicians regarding the evaluation and treatment of overweight in children and adolescents.

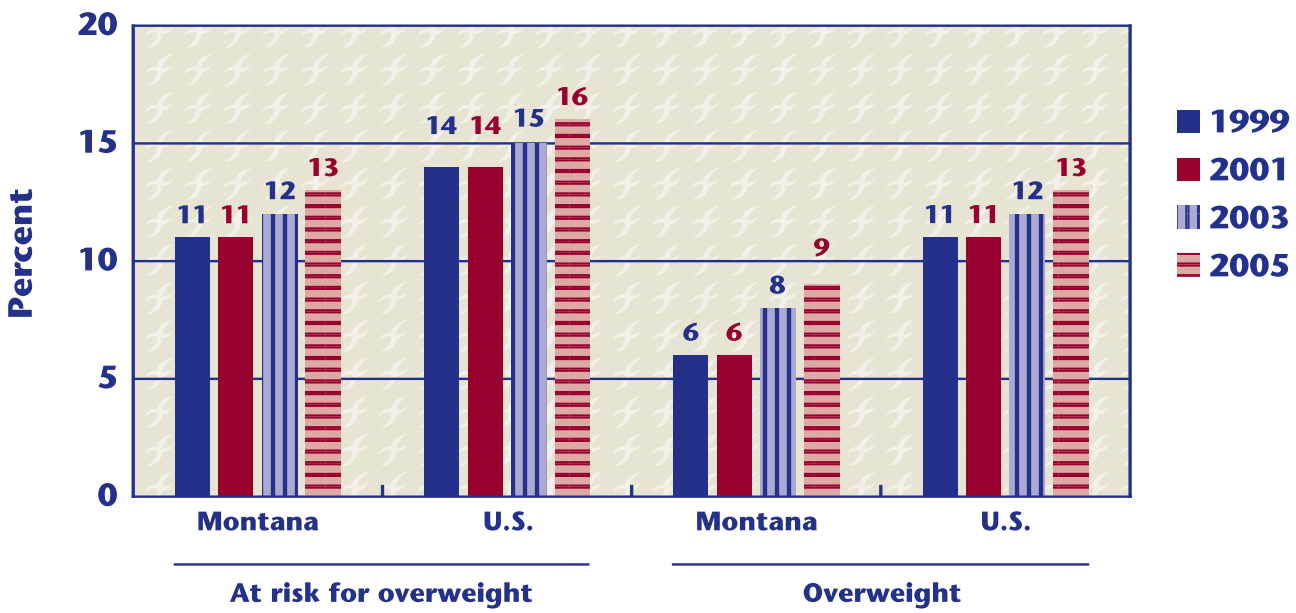
METHODS

In the summer of 2006, the Cardiovascular Health, Diabetes, and Nutrition and Physical Activity Section at the Montana Department of Public Health and Human Services conducted a mailed survey of a sample of Pediatricians and Family/General Practice physicians in Montana. The survey was adapted from a previously published survey developed by Trowbridge and colleagues.[5] The survey assessed provider attitudes and practices in evaluating and treating overweight and obesity in children and adolescents. The overall survey response rate was 34% (123 of 363).

RESULTS

Of the 123 survey respondents, 82% were Family or General Practice Physicians and 18% were Pediatricians. Fifty-two percent of respondents were male, and the mean number of years in practice was 17. Fifty-one percent of respondents were 45 to 64 years of age, 43% were less than 44 years of age, and 5% were 65 years of age and older.

Figure 1. Prevalence of overweight* and at risk for becoming overweight among high school students, Montana and the United States, 1999-2005.



*At risk for overweight = body mass index ≥85th percentile but <95th percentile by age and sex.
Overweight = body mass index ≥95th percentile by age and sex.

The majority of respondents believed that both childhood and adolescent overweight need treatment and can lead to increased risk for chronic diseases (Table 1). Few respondents believed that children or adolescents would outgrow their overweight. Respondents identified parental involvement in treatment (88%), patient motivation (81%), and the availability of support services (71%), such as nutrition counseling, as important barriers to effective treatment of childhood and adolescent overweight (Table 2). All of the respondents reported using a body mass index (BMI) percentile for age and sex to evaluate childhood and adolescent overweight (Table 3).

The majority of respondents reported limitations of specific foods and reduced consumption of sugar-sweetened beverages as frequently used treatment approaches for childhood and adolescent overweight (Table 4). Fewer respondents reported promoting changes in eating patterns, low-fat diets, and modest caloric restrictions as treatment approaches, particularly among overweight preschool aged children.

Over eighty percent of respondents reported increasing unstructured activities like play time and decreasing screen time (e.g. television and computer use) as treatment approaches for childhood and adolescent overweight and obesity (Table 4).

Approximately one-third of respondents reported often referring overweight and obese children and adolescents to dieticians or nutritionists (37%) (Table 5). Fewer respondents reported often referring patients to other support services. Montana's clinicians reported that they were proficient at assessing the degree of overweight in youth but less confident in their ability to address behavioral and family concerns (Table 6).

CONCLUSIONS

Obesity and overweight in youth are complex and challenging problems. Multiple factors influence both the diet and the physical activity of children and adolescents. Montana clinicians reported assessing youth using the current recommendations

Table 1. Beliefs about child and adolescent overweight and obesity, Pediatricians and Family/General Practice physicians, Montana, 2006.

Beliefs regarding child and adolescent overweight and obesity*	% (95 % CI)
Childhood overweight is a condition that needs treatment	95 (88-98)
Adolescent overweight is a condition that needs treatment	97 (91-99)
Overweight children will outgrow their overweight	1 (0-8)
Childhood overweight is more amenable to treatment than adult overweight	39 (30-50)
Overweight adolescents will outgrow their overweight	2 (0-7)
Adolescent overweight is more amenable to treatment than adult overweight	19 (12-28)
Childhood overweight increases the risk of chronic disease	92 (85-96)

*Responses include "most of the time" and "often"

Table 2. Barriers to treatment of child and adolescent overweight and obesity, Pediatricians and Family/General Practice physicians, Montana, 2006.

Important barrier to effective treatment of overweight children and adolescents*	% (95 % CI)
Patient motivation	81 (72-88)
Parent involvement in treatment	88 (79-93)
Clinician time	63 (52-71)
Reimbursement	59 (49-68)
Clinician knowledge about treatment	43 (34-53)
Clinician treatment skills	44 (34-54)
Support services (e.g. nutrition counseling)	71 (61-79)
Futility (ineffectiveness of recommended interventions)	54 (44-64)

*Responses include "most of the time" and "often"

Table 3. Evaluation of child and adolescent overweight and obesity among Pediatricians and Family/General Practice physicians, Montana, 2006.

How often do you use each of the following methods to assess excess weight in children and adolescents?*	% (95 % CI)
Clinical impression	82 (73-88)
Weight-for-age percentile	77 (67-84)
Weight-for-height percent	66 (55-75)
Weight-for-height percentile	76 (66-83)
Body mass index for age/sex	65 (55-74)
Body mass index percentile for age/sex	100 (-)

*Responses include "most of the time" and "often"

Table 4. Treatment approaches* for overweight and obesity used by Pediatricians and Family/General Practice physicians, Montana, 2006.

	Preschool aged children	School aged children	Adolescents
Dietary	% (95 % CI)	% (95 % CI)	% (95 % CI)
Changes in eating patterns	52 (42-61)	59 (49-69)	61 (51-71)
Limitations of specific foods	89 (80-94)	95 (88-98)	94 (88-98)
Low-fat diet	23 (16-33)	31 (23-41)	55 (44-64)
Modest caloric restrictions	22 (15-31)	39 (30-49)	59 (49-69)
Reduced consumption of sugar-sweetened drinks	89 (80-94)	94 (87-98)	93 (86-97)
Physical Activity			
Increase in organized activity (e.g. sports)	51 (41-61)	80 (71-87)	85 (77-91)
Increase in unstructured activity (e.g. play)	86 (77-92)	87 (78-93)	83 (74-89)
Increase in routine activity (e.g. walking)	65 (55-74)	82 (73-89)	87 (78-93)
Decrease in screen time (e.g. TV, computer)	92 (84-96)	96 (89-99)	95 (88-98)

*Responses include "often"

Table 5. Frequency of referrals* of overweight and obese children and adolescents to support services among Pediatricians and Family/General Practice physicians, Montana, 2006.

	% (95 % CI)
Dietician/Nutritionist	37 (28-47)
Nurse	2 (1-9)
Exercise specialist or program	6 (3-14)
Weight loss program	8 (4-15)
Pediatric sub-specialist	2 (1-9)
Self-help program	12 (7-20)

*Responses include "often"

Table 6. Proficiency* in treating overweight and obese children and adolescents among Pediatricians and Family/General Practice physicians, Montana, 2006.

	% (95 % CI)
Use of behavioral management strategies	61 (51-70)
Modification of diet/eating practices	79 (70-86)
Modification of patient physical activity	85 (76-91)
Modification of patient sedentary behavior	86 (77-92)
Guidance in parenting techniques	78 (68-85)
Addressing family conflicts/concerns	69 (58-77)
Assessing degree of overweight	93 (86-97)

*Responses include "most of the time" and "often"

and intervening with a variety of techniques and referrals. The clinician survey is an important beginning in approaching the problem in Montana.

There are a number of effective strategies that physicians and other health professionals can use to promote a healthy body weight among pediatric patients, including recommending a healthful diet and sufficient physical activity (60 minutes of moderate to vigorous physical activity every day).[6] Specifically, providers can assess their patients' physical activity patterns, encourage parents to be more active role models, and recommend activities specific to the child's age, family circumstances and environment. Clinicians can also determine the amount of time children spend in sedentary activities such as viewing television and playing video games, and advise parents to establish time limits (e.g. two hours a day or less) for these activities. Additionally, physicians can promote desirable body weight by taking a diet history, educating parents about appropriate portion sizes, discouraging the use of high-calorie snacks as rewards, and promoting a diet low in saturated fat and cholesterol and rich in vegetables, fruits and whole grains for children age two or older.

Montana's Nutrition and Physical Activity Program (NAPA), funded by CDC and based in Bozeman at Montana State University, is working to increase opportunities for physical activity and healthy eating among children in child care centers, schools, and community settings. For example, in child care centers, NAPA uses the Nutrition and Physical Activity Self Assessment for Child Care, and provides mini-grants to enable center staff to make improvements based on the results of their self assessments. In public schools, NAPA provides mini-grants and technical assistance to support school staff in developing and implementing policy and environmental changes to increase students' access to fruits and vegetables and physical activity opportunities, and to decrease their access to sugar-sweetened beverages. In five Montana communities,

NAPA provides mini-grants and technical assistance to promote breastfeeding (a protective factor against childhood obesity) by helping businesses and other public spaces become more "breastfeeding friendly." On five reservations in Montana, NAPA provides mini-grants, training, teaching tools and incentives to help parents and grandparents provide children with more opportunities to be physically active and eat high-nutrient, low-calorie fruits and vegetables. For more information about advocating to prevent childhood obesity in your community, contact NAPA Program Manager Ninia Baehr at niniab@montana.edu.

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SAVE THE DATE!

DIABETES PROFESSIONAL CONFERENCE – GREAT NORTHERN HOTEL, HELENA, MONTANA, OCTOBER 11 – 12, 2007

The Montana Diabetes Project's professional conference will be held on Thursday and Friday, October 11-12, 2007 in Helena, Montana at the Great Northern Hotel. For more information, contact Susan Day at (406) 444-6677 or e-mail sday@mt.gov.

SAVE THE DATE!

WYOMING CHRONIC DISEASE CONFERENCE – LITTLE AMERICA HOTEL, CHEYENNE, WYOMING, MAY 7 – 8, 2008

The Wyoming Chronic Disease Conference will be held on Wednesday and Thursday, May 7-8, 2008 in Cheyenne, Wyoming at the Little America Hotel. For more information, contact Wanda Webb at (307) 587-5689 or e-mail wwebb@state.wy.us.

WHAT ARE THE MONTANA DIABETES PREVENTION AND CARDIOVASCULAR HEALTH PROGRAMS AND HOW CAN WE BE CONTACTED?

The Montana Diabetes Control and Cardiovascular Health Programs are funded through cooperative agreements with the Centers for Disease Control and Prevention, Division of Diabetes Translation (U32/CCU822743-05), the Division for Heart Disease and Stroke Prevention (U50/CCU821287-05) and through the Montana Department of Public Health and Human Services.

The mission of the Diabetes Control and Cardiovascular Health Programs is to reduce the burden of diabetes and cardiovascular disease among Montanans. Our web pages can be accessed at http://ahec.msu.montana.edu/diabetes/default.htm and http://montanacardiovascular.state.mt.us.

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